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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 10/759,988 | 01/15/2004 | Peter Chambers | MIC-M097 | 8327 |
| 32566 | 7590 | 07/31/2007 | EXAMINER | |
| PATENT LAW GROUP LLP | | | NGO, CHUONG D | |
| 2635 NORTH FIRST STREET | | | | |
| SUITE 223 | | | ART UNIT | PAPER NUMBER |
| SAN JOSE, CA 95134 | | | 2193 | |
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| | | | 07/31/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/759,988 | CHAMBERS ET AL. | |
| | Examiner | Art Unit | |
| | Chuong D. Ngo | 2193 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05/09/2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 and 11-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-9 and 11-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-9 and 11-19 are directed to methods and systems for merely performing manipulation and calculation of data values to convert a value in a first unit to a value in a second unit in accordance with a mathematical algorithm. In order for a such a claimed invention that merely involves manipulation and calculation of data values to be statutory, the claimed invention must accomplish a practical application. That is the claimed invention must transform an article or physical object to a different state or thing, or produce a useful, concrete and tangible result. State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Also see "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", OG Notices: 22 November 2005. It is clear from claims 1-9 and 11-19 that the claims merely involve calculations and manipulations of data. The claimed inventions do not transform an article or physical object to a different state or thing. The inputs are numerical values and the output is also a numerical value. The result produced by the inventions is a merely numerical value without a practical application recited in the claims to make the results useful, concrete and tangible. Therefore, the inventions of claims 1-9 and 11-19 are directed to non-statutory subject matter as the claimed inventions fail to accomplish a practical application. Further, since the

claims appear to cover every substantial practical application, it is also directed to a preemption of the claimed data manipulation and calculation.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly (5,942,992) in view of Kawawaki et al. (5,371,694) and Ishida (5,504,697).

Kelly discloses in figure 2A a device (201) for performing numerical value conversion of a digital input signal (204) in a first unit to a second unit being a natural unit (engineering units 299). The device has a look-up table (214) for storing a plurality of coefficients including slopes and offsets of linear equations, and an arithmetic logic unit having a multiplier(220) and an adder (226) as claimed (see col. 5, line 7- col. 6, line 33). It is noted that Kelly does not disclose a use of a measurement parameter in indexing the look-table. However, Kawawaki et al. discloses in figure 6 a use of measurement parameters to index a conversion look-up table indexed . It would have been obvious to a person of ordinary skill in the art to provide the device of Kelly with a look-up table that is also indexed by measurement parameters in order to improve the flexibility of the device for converting units in different measurement parameters. It is further noted that Kelly does not disclose a saturation-limit circuit. However, Ishida clearly discloses in figure 1, a saturation-limit circuit as claimed for handling values produced by the arithmetic logic unit

(ALU 101) that are outside the output range. Thus, it would have been obvious to a person of ordinary skill in the art to further provide the device of Kelly with a saturation-limit circuit as taught by Ishida in order to handle values produced by the ALU (220,226) that are outside the output range, and thus to reduce error. Further, the selection of minimum output value being zero as recited in claim 4 would have been obvious as being depending on the nature and type of measurements.

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Chuong D Ngo
Primary Examiner
Art Unit 2193

07/22/2007